

**Typical concentrations of common ions in river and seawater**

Ion*	Conc (Rivers) mol/L	Conc (Oceans) mol/L
<b>Cl<sup>-</sup></b>	$2.2 \times 10^{-4}$	0.55
<b>Na<sup>+</sup></b>	$2.7 \times 10^{-4}$	0.46
<b>Mg<sup>2+</sup></b>	$1.7 \times 10^{-4}$	0.054
<b>SO<sub>4</sub><sup>2-</sup></b>	$1.2 \times 10^{-4}$	0.028
<b>K<sup>+</sup></b>	$0.59 \times 10^{-4}$	0.010
<b>Ca<sup>2+</sup></b>	$3.8 \times 10^{-4}$	0.010
<b>HCO<sub>3</sub><sup>-</sup></b>	$9.5 \times 10^{-4}$	0.0023

**Inputs and Residence Times of common ions in seawater**

Ion*	Input from rivers ( $10^{10}$ mol/yr)	Residence time (yr)
<b>Cl<sup>-</sup></b>	720	$1 \times 10^8$
<b>Na<sup>+</sup></b>	900	$7 \times 10^7$
<b>Mg<sup>2+</sup></b>	550	$1 \times 10^7$
<b>SO<sub>4</sub><sup>2-</sup></b>	380	$1 \times 10^7$
<b>K<sup>+</sup></b>	190	$7 \times 10^6$
<b>Ca<sup>2+</sup></b>	1220	$1 \times 10^6$
<b>HCO<sub>3</sub><sup>-</sup></b>	3200	$1 \times 10^5$

\*Ions listed in order of decreasing concentration in seawater.